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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

YOR919870074US5

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on

Signature

Typed or printed name **Daniel P. Morris**

Application Number

08/479,810

Filed

June 7, 1995

First Named Inventor

Bednorz

Art Unit

1751

Examiner

M. Kopec

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐

applicant/inventor.

☐

assignee of record of the entire interest.

See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is endorsed.
(Form PTO/SB/96)

☒

attorney or agent of record.

32,053

Registration number

☐

attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34

Signature

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Typed or printed name

914-945-3217

Telephone number

April 19, 2006

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

☒*Total of 1 forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Patent Application of

Date: April 20, 2006

Applicants: Bednorz et al.

Docket: YO987-074BZ

Serial No.: 08/479,810

Group Art Unit: 1751

Filed: June 7, 1995

Examiner: M. Kopec

For: NEW SUPERCONDUCTIVE COMPOUNDS HAVING HIGH TRANSITION
TEMPERATURE, METHODS FOR THEIR USE AND PREPARATION

Mail Stop: AF

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

PRE-APPEAL BRIEF

Sir:

This Pre-Appeal Brief is submitted in response to the Final Office Action dated October 20, 2005 and the Advisory Action dated December 28, 2005, please consider the following:

Please charge any fee necessary to enter this paper and any previous paper to deposit account 09-0468.

Since a three month extension of time fee has already been paid, no extension of time fee is necessary to enter this paper.

I - CLAIM OF PRIORITY TO PRIORITY DOCUMENT

Applicants request the claim of priority in their paper submitted 04/27/1998 be granted. The Examiner did not respond to applicant's arguments in support thereof in responses of 08/02/1999, 03001/2004 and other responses. Or, applicants request entry of a statement that this issue does not have to be decided to resolve the issues in this appeal and thus the denial of priority is withdrawn.

II - REJECTIONS UNDER 35 USC 112 ¶ 2 FOR INDEFINITENESS

Claims 1-5, 7-11, 17, 19, 23, 28, 52-54, 59, 65, 72, 77-81, 86, 87, 94, 96-108, 144, 145, 149, 150, 152-156, 158-161, 165, 166, 170, 171, 175, 176, 180, 181, 235, 236, 240, 241-252, 257, 261, 262, 266, 267, 271, 272, 361-413, 414-427, 433, 434, 446, 448, 466-495 and 537-539 are rejected under 35 U.S.C. 3 112, 2nd ¶, as indefinite. The Examiner states at page 4 in the Rejection mailed 7/28/04:

"The terms "layer-type", "perovskite-like", "rare-earth-like" and "near-rare earth" (claim 65) are vague and confusing. See MPEP 2173.05. The question arises: What is meant by these terms? The terms "layer-type" and "perovskite-like" are unclear because the "type" or "like" terms are deemed to be indefinite. Terms such as "like", "similar", and "type" are indefinite. Additionally, the newly added claims terminology "comprising a rare-earth characteristic", "comprising a layer characteristic" and "comprising a perovskite characteristic" are considered indefinite. The terms are considered identical in scope to the previously rejected terminology and are indefinite for the same reasons."

Applicants respectfully disagree. Since applicants have shown that the USPTO routinely issues patents with claims having elements containing the language as "like," "similar" and "type," these terms are not only not considered per se indefinite but are accepted as definite by the USPTO.

Applicant's response of 03-01-2004 (received by USPTO 03-03- 2004, entitled "Fourth Supplementary Amendment") lists claims from 81 issued US patents that use the terms "perovskite-like", "rare-earth-like", "layer-like" and "layer-type" which are the same terms rejected as indefinite by the Examiner. MPEP 2173.05(b) "Relative Terminology" states "[t]he fact that claim language, including terms of degree, may not be precise, does not automatically render the claim indefinite under 35 U.S.C. 112, second paragraph. ... Acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed, in light of the specification." The Examiner has presented no reasons why "one of ordinary skill in the art would [not] understand what is claimed." Attachments A of applicants' response of 11-28-1997 (received by USPTO 12-2-1997) (Response -11-28-97) identifies 68 issued US patents using the term "rare earth like" or "rare earth and the like". Attachment B of Response -11-28-97 identifies 4 issued US patents containing the claims term "rare earth like." Attachment C of Response -11-28-97 identifies 107 issued US patents containing the term "perovskite-like" Attachment D of Response -11-28-97 identifies 2 issued US patents containing the claim term "perovskite-like." Attachment E of Response -11-28-97 identifies a section of a book "Structure of Perovskite-type Compounds." Attachment F of

Response -11-28-97 identifies a section of a book entitled "D- Perovskite-type Superconducting Structures." Attachment L of Response -11-28-97 identifies a section of a book entitled which states "layered-type superconductors with transition temperatures in the reasonable high range from 4 to 7 K have been known for a long time." Attachment M of Response -11-28-97 identifies more than 1000 patents contain the term ceramic within one word of like. At page 5 of the Office action of 10-28-2004 the Examiner states "Each patent is considered on its own merits. ... In the present case; however, the term "rare-earth-like" and "perovskite-like" are unclear." However, the Examiner has not stated why these terms are in the Examiner's view "unclear", but the identical terms in the cited issued patents are not unclear. The Examiner provides no standard against which to make such a determination. Thus the Examiner has not made a prima facie case of indefiniteness. Attachment E of the "FIRST SUPPLEMENTAL AMENDMENT" submitted 03-01-2005 contains a copy of the book "Structure, Properties and Preparation of Perovskite-Type Compounds, F. S. Galasso , Pergamon Press, 1969, in particular pages 159-186, published about 17 years before applicants' priority date. The standard reference published about 17 years before applicants priority date "Landholt-Börnstein", Volume 4, "Magnetic and Other Properties of Oxides and Related Compounds Part A" (1970) lists at page 148 to 206 Perovskite and Perovskite-related or Perovskite-like structures. (See Attachment N and O of the "FIRST SUPPLEMENTAL AMENDMENT" submitted 03-01-2005). Section 3.2 starting at page 190 is entitled "Descriptions of perovskite-related structures", which is also translated as Perovskite-like structures. The Affidavit of Shaw of 04-14-2005 ; Affidavit of Dinger of 04-04-2005 and Affidavit of Tsuei of 04-04-2005 (DST AFFIDAVITS) contain additional objective evidence that the terms found indefinite by the Examiner were used and understood by persons of skill in the art prior to applicants priority date. For example, the term "rare earth like," an equivalent to a rare earth element, is a defined term in applicants specification - see ¶ 14 of DST AFFIDAVITS. The term "layered" is a term of the art - see ¶s 38-41, 48-49 of DST AFFIDAVITS. The term "perovskite-like" is term of art - see ¶s 32-36, 47-48 of DST AFFIDAVITS. defined in The Examiner has not responded to this objective evidence that persons of skill in the art understand the claims terms rejected as indefinite.

The Examiner further states at page 4 of the Rejection mailed 7/28/04 in the footnote without comment: "See Ex parte Remark, 15 USPQ 2d 1498, 1500 (BPAI 1990); Ex parte Kristensen, 10 USPQ 2d 1701, 1703 (BPAI 1989); Ex parte Attig, 7 USPQ 2d 1092, 1093 (BPAI 1988); and Ex parte Copenhaver, 109 USPQ 118 (POBA 1955). " Applicants have addressed the holding of these decisions in pp 106-108 of applicants response dated 03-01-2004 - received by USPTO 03-03-2004 entitled "Fifth Supplementary Amendment" and have given extensive reasons why they do not apply in the present application. The Examiner has provided no rebuttal of these comments. The Examiner had

made no attempt to show to satisfy the Examiner's burden that one of ordinary skill in the art would not understand the terms. Thus the rejections for indefiniteness should be reversed.

III - REJECTIONS UNDER 35 USC 112 ¶ 1 FOR LACK OF ENABLEMENT

Claims 1-64, 66-72, 84, 85, 88-96, 100-102, 109-112, 115, 122, 126-134, 139, 141-143, 146-149, 153-155, 162-166, 182-184, 187, 188, 192-195, 198-212, 217-219, 222, 223, 227-230, 232-234, 237-240, 244-246, 253-257, 268, 273-275, 278, 279, 283-286, 289, 295, 302, 303, 308-310, 313, 314, 318-329, 331-334, 337-345, 347-357, 359-374, 376, 379, 380, 382, 383, 389, 394, 395, 402, 407, 408, 414-501, 508-510, 516-543 are rejected under 35 U.S.C. 112 ¶ 1, as not enabled.

III (a) REJECTIONS UNDER 35 USC 112 ¶ 1 FOR LACK OF ENABLEMENT -

CLAIMS IN MEANS PLUS FUNCTION FORM

Claims in means plus function form are 438 to 465. MPEP § 2181 Part II states "35 U.S.C. 112, sixth paragraph states that a claim limitation expressed in means-plus-function language 'shall be construed to cover the corresponding structure described in the specification and equivalents thereof.'" The Examiner has allowed claims 113, 114, 123-125, 135-138, 140, 151, 157, 167-169, 172-174, 177-179, 185, 186, 189-191, 197, 213-216, 220, 221, 224-26, 231, 258-260, 264, 265, 269, 270, 276, 277, 280-282, 287, 288, 296-301, 304-307, 311, 312, 315-317, 502-507 stating these claims are allowed "because the specification, [is] enabling for compositions comprising a transition metal oxide containing at least a) an alkaline earth element or Group IIA element and b) a rare-earth element or Group IIIB element" Thus since the Examiner has allowed claims to specific examples described in the specification, the claims in means plus function form can not be rejected as not being enabled and the rejection should be reversed.

III (b) REJECTIONS UNDER 35 USC 112 ¶ 1 FOR LACK OF ENABLEMENT

CLAIMS IN MEANS PLUS FUNCTION FORM

At page 6 of the Office Action dated October 20, 2005 the Examiner states:

"The examiner does not deny that the instant application includes "all know principles of ceramic science", or that once a person of skill in the art knows of a specific type of composition which is superconducting at greater than or equal to 26K, such a person of skill in the art, using the techniques described in the application, which included all principles of ceramic fabrication known at the time the application was initially filed, can make the known superconductive compositions. The numerous 1.132 declarations, such as those of Mitzi, Shaw, Dinger and Duncombe, and the Rao article, are directed to production of know superconductive materials. "
Thus the Examiner agrees that "a person of skill in the art, using the techniques described in the application, which included all principles of ceramic fabrication known at the time the application was initially filed, can make the known superconductive compositions."

At page 6 of the Office Action dated October 20, 2005 the Examiner further states:

"What is not a "matter of routine experimentation" in this complex, unpredictable art is arriving at superconductive compositions outside the scope of the allowable claims (e.g., subsequently

discovered BSCCO or TI-systems as disclosed in Rao (see response filed 3/8/05, pages 141-143). The examiner respectfully maintains that the instant disclosure has not provided sufficient guidance to produce such materials."

This statement is clearly inconsistent with *In re Angstadt* 190 USPQ 219 and *In re Wands* 8 USPQ2d 1400 which held that to satisfy the first paragraph of 35 USC 112 it is only necessary that a person of skill in the art not exercise undue experimentation to make samples that come within the scope of the Applicants' claims. The Examiner has provided no objective indication that undue experimentation was needed to make the subsequently fabricated systems disclosed in Rao. Applicants have clearly shown that only routine experimentation is needed to fabricate other samples to practice Applicants' claimed invention. See the DST AFFIDAVITS. Applicants respectfully disagree that the field of High Tc superconductivity is unpredictable within the meaning of the US patent law as suggested by the Examiner. See the affidavit of Newns submitted 04/12/2006. The complex chemistry does not have to be understood to fabricate samples as stated in the book "Copper Oxide Superconductors" by Charles P. Poole, et al. (See ¶ 48 of DST AFFIDAVITS) states at page 59 "[c]opper oxide superconductors with a purity sufficient to exhibit zero resistivity or to demonstrate levitation (Early) are not difficult to synthesize. We believe that this is at least partially responsible for the explosive worldwide growth in these materials". Poole further states at page 61 "[i]n this section three methods of preparation will be described, namely, the solid state, the coprecipitation, and the sol-gel techniques (Hatfi). The widely used solid-state technique permits off-the-shelf chemicals to be directly calcined into superconductors, and it requires little familiarity with the subtle physicochemical process involved in the transformation of a mixture of compounds into a superconductor." Skilled artisans can fabricate samples without knowing the chemistry and without a detailed theory thus this art is predictable. All that is needed is needed is routine experimentation to fabricate samples. There is no evidence to the contrary.

In *In re Wands* 858 F.2d 731, 742 (Fed. Cir. 1988); 8 U.S.P.Q.2D 1400 the CAFC stated "[The inventor] must provide sufficient data or authority to show that his results are reasonably predictable within the scope of the claimed generic invention, based on experiment and/or scientific theory." Thus experiment or theory is sufficient to establish predictability. And as stated above by the Examiner "a person of skill in the art, using the techniques described in the application, which included all principles of ceramic fabrication known at the time the application was initially filed, can make the known superconductive compositions." There is no requirement to know in advance all examples enabled by their teaching. Thus the field of High Tc superconductivity is predictable within the meaning of *In re Wands*.

The Examiner's reference to "subsequently discovered BSCCO or TI-systems" suggests that it is the Examiner's view that for applicants to be allowed a generic claim applicants must know in

advance all materials that can be used to practice applicant's claims. The CAFC has stated in *Sri Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985); 227 USPQ 577, 586 that this is not necessary:

"The law does not require the impossible. Hence, it does not require that an applicant describe in his specification every conceivable and possible future embodiment of his invention. The law recognizes that patent specifications are written for those skilled in the art, and requires only that the inventor describe the "best mode" known at the time to him of making and using the invention. 35 U.S.C. § 112. "

Applicants have shown that persons of ordinary skill in the art as of applicants priority date can practice applicant's claims to their full scope and the Examiner has agreed with this.

The CAFC has further stated

"An applicant for patent is required to disclose the best mode then known to him for practicing his invention. 35 U.S.C. § 112. He is not required to predict all future developments which enable the practice of his invention in substantially the same way. " Hughes Aircraft Co. v. United States, 717 F.2d 1351, 1362 (Fed. Cir. 1983);39 USPQ2d 1065.

This is exactly what applicants have done. Thus applicant's claims are enabled.

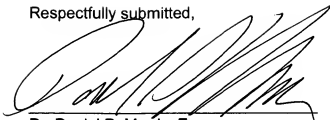
The CAFC further states in regards to future developments:

"Enablement does not require the inventor to foresee every means of implementing an invention at pains of losing his patent franchise. Were it otherwise, claimed inventions would not include improved modes of practicing those inventions. Such narrow patent rights would rapidly become worthless as new modes of practicing the invention developed, and the inventor would lose the benefit of the patent bargain. Invitrogen Corp. v. Clontech Labs., Inc., 429 F.3d 1052, 1071 (Fed. Cir. 2005)"

The Examiner's position in regards to the enablement of applicants' claims is inconsistent with the CAFC's position that "Enablement does not require the inventor to foresee every means of implementing an invention." Thus applicant's claims are enabled and the rejection should be reversed.

The Examiner in the Office Action 10/20/ 2005 at page 4 refers to a article by Schuller et al. Which states "Of course, 'enlightened' empirical searches either guided by chemical and materials intuition or systematic searches using well-defined strategies may prove to be fruitful. It is interesting to note that while empirical searches in the oxides gave rise to many superconducting systems." See the Affidavit of Newns submitted 04/12/2006 ¶ 18. The DST AFFIDAVITS describe what a person of skill in the art knew prior to applicants' priority date upon which the systematic empirical study was based in view of applicant's teaching. The Affidavit of News shows how this systematic empirical study is in principal the same as a systematic theoretical investigation when a well developed theoretical formalism exists. Thus applicant's claims are predictable and enabled. In the response submitted 01/28/2005 at pages 148-150 applicants applied the MPEP ¶ 2164.01(a) Undue Experimentation Factors from *In re Wands*. The Examiner has provided no rebuttal to this.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'D. P. Morris', written over a horizontal line.

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